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Farming the Odds

THE AGRICULTURAL OUTLOOK

Reminiscing. Midnight of the 31st of this month marks the close of a year that has brought U.S. farmers record high realized net incomes per farm from record high crop and livestock production.

However, midnight of the 31st also marks the end of the decade of the 1960's—a 10-year span which witnessed a number of significant changes in U.S. agriculture.

Here are some of the highlights of that period:

Productivity: yesterday and today. Today 2.4 million fewer farmworkers are producing 14 percent more farm products on 23 million fewer acres of cropland than in 1960.

During this decade, farm output per man-hour has soared. It now stands more than three-fifths higher than at the start of the 1960's. The increase has been particularly pronounced for livestock—more than 74 percent. Output per man-hour in crop production is half again as high as it was in 1960.

Today the average U.S. farmworker produces enough food, fiber, and tobacco to supply 43 people—38 in this country and five overseas. At the start of the decade, his production was sufficient for only 26 people—22 in the United States and four abroad.

Helping farmers achieve these impressive gains in on-farm productivity are the many workers in farm input or marketing industries. Every farmworker is now backed up by more than two nonfarm employees in agriculturally related industries.

Pickup in purchased inputs. Purchased inputs now account for about three-fourths of all inputs used in agriculture and their use has shown dramatic growth during the decade of the 1960's.

The application of fertilizer and liming materials to U.S. crops is about double what it was in 1960.

Purchases of feed, seed, and livestock have gained by over a third. And inputs of mechanical power and machinery today stand about a tenth higher than at the decade's beginning.

Larger machines are now rapidly replacing many of the relatively small machines on farms in the early 1960's. In 1960, on-farm tractors, for example, averaged about 33 maximum belt horsepower. In 1968, their capacity was over 42 horsepower. Total available horsepower during that year increased nearly one-third with less than a 3-percent increase in tractor numbers.

Farm production expenses, of course, are up sharply from what they were "way back when" purchased inputs weren't so important. During the decade, production costs have gained by roughly \$12 billion—or about 46 percent. Prices paid by farmers for production items, interest, taxes, and wage rates climbed about one-fourth.

Incomes. Gains in farmers' realized gross incomes have more than made up for today's production costs, however. In the course of the decade, the realized gross income of the Nation's farmers has climbed from about \$38 billion (including direct government payments) to more than \$54 billion. Realized net income has gone from a little less than \$12 billion to almost \$16 billion, an increase of about 35 percent.

And per farm average realized net incomes at the close of the decade should come to more than \$5,300—80 percent greater than at the start—as farm numbers have declined.

The sixties have also seen a marked improvement in the average personal income of farm people in comparison with the income of other citizens.

At the outset of the decade, farm people's per capita after-tax earnings from all sources averaged only about 55 percent of the nonfarm population's after-tax earnings.

This year, the ratio should be around 75 percent. Steady gains in income from nonfarm sources as well as higher levels of farm income have contributed to this improvement. Also, the farm population has declined by about one-third since 1960, while the nonfarm populace has increased a little more than 15 percent.

Topsy Turvy Tenure Ladder

Full land ownership—formerly the topmost rung of the tenure ladder—today ranks second to the goal of resource control. Rental is an important tool for farmers.

Land rental was the bottom rung, full ownership the top, in the traditional tenure ladder concept.

But sometime during the past several decades—as farmland values rose and the acreage of land for sale declined—the ladder fell over. And when it was re-erected, the land rental rung ended up on top.

Today many U.S. farmers put the goal of full land ownership second to the goal of resource control. And land rental is no longer just a temporary step towards full ownership. Instead, it has become an effective and often permanent tool used to gain control of the necessary land resources.

It's a particularly important tool for operators of larger farms. Of the Nation's 3 million farms, more than four-fifths of the value of U.S. farmland and buildings is concentrated in 1 million farms. These operations comprise three-fourths of the value of owned land and nine-tenths of rented land value.

In an even finer breakdown, the 400,000 largest farms control nearly six-tenths of the farmland value. These larger farms, whose real estate values top \$100,000

per farm, account for half of the land owned by operators. However, seven-tenths of the rental land value is concentrated in these farms.

In contrast, the million smallest farms, where the value of land and buildings is less than \$15,000 each, rent virtually no land. And these small-scale operations control only about 4 percent of America's total farmland value.

Typically, large operators who rent land are also part-owners. They own the headquarters unit and rely on leasing the remainder from one or more landlords.

The greater emphasis on rental land by operators of the larger farms has three big implications for agriculture:

—First, it permits participation of nonfarmers and their capital in agricultural production at a relatively low investment compared with the requirements of a complete operation.

—Second, farm operators can expand with relatively small capital investments.

—Third, the relationship of landlord to tenant becomes similar to the stockholder-manager relationship in corporate firms. As a result, the lease becomes a highly refined tool of an efficiently run business.

A sizable share of the farmland rented is rented for cash. Cash leasing is the primary rental arrangement in the Mountain States, where much of the rental property is grazing land. In the Corn Belt, the crop share lease is more frequently used.

In 1968 gross rents per acre for farms rented for cash ranged from \$3.05 an acre in the Mountain States to about \$26.00 in the Corn Belt. After subtracting landlord costs, net rents ranged from about 2.2 percent of market value in the Pacific Region to 6.4 percent in the Delta States.

Because farm expansion is a major factor in the rental market, ERS keeps separate sta-





Men and Milestones

PIONEER IN MAKING FARM ECONOMICS WORK

In 1926, as head of the Division of Agricultural Economics at the University of Minnesota, John Donald Black publishes "Introduction to Production Economics." It is a pathfinding book that is to become a fundamental work in the field. Shortly thereafter he is tapped for a teaching position at Harvard University where he continues his pioneering work. Again and again Black demonstrates an uncanny ability to "open up" new fields of research just when the need arises. And his wide-ranging contributions to farm policy bring him well deserved eminence.

* * *

John Donald Black, teacher, economist, farm policy originator, was long in the forefront of American agricultural economists. After publishing his landmark work, he joined the faculty at Harvard University where he was to remain the rest

of his life teaching.

Many students went to Harvard specifically to study under him, and many of them later achieved prominence in research, teaching, and government.

Black's interests included national agricultural policy, food and nutrition, and related subjects. In the late 1920's, he was active in developing the domestic allotment plan, a precursor of later farm programs.

Among Black's major publications are such basic farm economics works as *Agricultural Reform in the United States* (1929); *Farm Management*, written with Marion Clawson, Charles R. Sayre, and Walter Wilcox (1947); and perhaps his finest work, *The Rural Economy of New England* (1951).

His honors included presidency of the American Farm Economic Association in 1932, presidency of the American Economic Association in 1955, and election as a fellow of the American Farm Economic Association in 1957. (2)

tistics on cropland acreage rented for cash.

In general cash rents per acre for cropland exceed those paid for whole farms—reflecting a greater crop production potential for cropland tracts than for whole farms, which may also include farmsteads and pastureland. In general these cropland rents on a gross basis yield 5.5 to 8 percent of the market value.

Much of the pastureland rented in the United States is leased on a rate per head per month for pasturing cattle. At present the average rate is \$3.34 per head per month, ranging about \$2.00 in the Southeast and Delta to over \$3.80 in the 11 Western States. (1)

Most of the Land Farmers Rent Is Owned by Nonfarm Landlords

The more land a farmer buys, the more he rents.

Or so it would seem looking at a special 1966 USDA survey designed to identify the differences between farms that grew in size and those that didn't.

The survey showed that farmers as a whole rented 2.3 additional acres of land for every new acre they bought in 1966.

And who did they rent the land from? From nonfarm people mostly. Nearly 90 percent of the farmland rented that year was owned by absentee landlords and others who lived in cities or on nonfarm rural property.

What's more, the survey revealed that about one third of farm real estate assets fall into this category. That is, they are owned by persons other than the farmers who operate the farms.

The total amount of farmland rented has not actually changed much over the years. Though more farmland is now being rented by part-owner farmers, correspondingly less land is leased by farmers who rent all the land they operate. (3)

Turkeys Change Roosting Abodes; Southern Areas on the Upswing

Many birds, through natural instincts, often change the location of their abode. Our domesticated turkeys seem to be doing the same thing, but it isn't their own idea.

Not only has the location of turkey production shifted over the past decade, but there's also been a rapid increase in output of turkeys.

Between 1960 and 1967 total U.S. turkey output jumped 57 percent—from less than 1.5 billion pounds to a whopping level well over 2.3 billion pounds.

Though production dropped off to about 2 billion pounds in 1968, a pickup was expected to push it to 2.1 billion pounds in 1969.

Turkey enterprises are concentrated into eight major producing areas scattered across the country. These areas raised more than 80 percent of the Nation's annual turkey crop, and it is in these areas that the major changes have taken place.

The location of production began to shift from its established pattern in 1964.

Two minor producing areas in the South—Arkansas and Missouri, and North and South Carolina and Georgia—began to expand output rapidly.

They have since accounted for a major portion of the national increase in turkey output and have garnered an increasing share of total U.S. production.

In 1963, these two areas together produced 241 million pounds, or 14 percent of our total turkey output. By 1967, they were producing 576 million pounds, or almost one quarter of total production. And last year their combined output was 536 million pounds—27 percent of the U.S. total.

The South Atlantic area alone (the Carolinas and Georgia) quadrupled production from 55 million pounds in 1960 to 220 million pounds in 1968.

The turkey industry in the South Atlantic States has borrowed many of the concepts that were pioneered by the region's

important broiler and egg industries. This base of modern technology along with organizational methods, has stimulated growth of the area's turkey industry and is giving it at least a short-run competitive edge.

The South Atlantic States also have had a labor advantage that has helped along the expansion of its poultry industry as a whole. (Continued industrialization in this region in the next decade could, however, lessen this advantage.)

In addition, major reductions in transportation rates on feed grains and a land use shift from cotton to feed grains and soybeans have improved the region's competitive position in terms of feed costs.

And since the South's climatic conditions enable year-round ranging of birds, this solves many seasonality problems that plague the industry in the North.

These reasons for expansion of the South Atlantic's turkey output also apply to the other up-and-coming area, the South Central States.

Meanwhile, the share of national turkey output by the older, traditional producing area of the five-State Upper Midwest has dropped from about a third to less than a fourth between 1960 and 1968. Though the Upper Midwest has a comparative advantage in feed grain supplies, it has not been enough to offset other disadvantages. Nevertheless, this area will probably maintain its position as a leading turkey supplier.

The industrialized Northeastern and East-Central States have continued to become more deficit in turkey production. And they'll be the primary market target for surplus production of other regions.

Whether or not one of the other producing areas can gain a competitive edge in this market—and which one it turns out to be—will probably be determined in the decade now starting. (4)

TURKEY OUTPUT SHIFTS SOUTHWARD

Major producing areas	1960	1961	1962	1963	1964	1965	1966	1967	1968
Million pounds liveweight									
Upper Midwest ¹	454	581	474	493	514	533	533	565	481
California	281	342	349	291	305	300	332	371	283
Arkansas-Missouri	122	161	122	157	202	234	318	386	315
Indiana-Ohio	111	137	123	139	149	142	150	162	139
Colorado-Utah	86	116	104	108	96	102	119	142	123
Texas	74	91	80	91	96	104	126	157	144
North Carolina-South Carolina-Georgia	55	82	70	84	117	127	162	190	222
Virginia	50	58	49	59	65	71	82	78	66
Total	1,233	1,568	1,371	1,422	1,544	1,613	1,822	2,051	1,773
Total U.S. production	1,489	1,871	1,626	1,686	1,826	1,915	2,123	2,343	2,011

¹ Minnesota, Iowa, Wisconsin, North Dakota, and South Dakota

Lag in Illinois Meatpacking Holds Back Growth in Cattle Feeding

Illinois cattle feeders are lagging behind their counterparts in Iowa and Nebraska when it comes to growth in the number of fed cattle marketed.

All three of these States have, in the past few years, been among the top four cattle feeding States in the Nation. All of them are still in the top 10; but while Iowa and Nebraska rank first and second, Illinois has dropped from fourth to seventh place since 1965.

Nebraska and Iowa led the rest of the Corn Belt in growth from 1962 to 1967 with 68 and 51 percent increases, respectively. Illinois was 12th in a field of 12 North Central States, with an increase of only 1 percent.

Records at the University of Illinois show that cattle feeders in the State have recovered all of their book costs only four times in the last 15 years.

What's the problem in Illinois?

For one thing, Illinois feeders have traditionally purchased and fed fancy cattle, paid top money for them, and fed to heavy weights. In other words, cattle have not been bought, fed, and sold in simple terms of how much money they will earn for the feeders.

And Illinois has been slow in adopting direct marketing methods. In 1965 almost three-fourths of its cattle were still being sold through the old terminal markets—even though direct selling usually nets a higher return for the producer.

Probably the most significant difference between the States is in their meatpacking facilities.

Both Nebraska and Iowa have an advantage in meatpacking. Nebraska, especially, has one of the most efficient cattle packing industries in the country.

The Illinois packing industry, on the other hand, is just begin-

ning to modernize and as a consequence it is now considerably less efficient in packing than either Nebraska or Iowa.

And the burden of lower packer efficiency in Illinois is passed back to the feeder—whose business suffers as a result.

It can't be passed forward to consumer prices because the State's packers are competing in the same market with more efficiently packed cattle from other Corn Belt States. (5)

Added Avoirdupois

Beef cattle slaughtered in 1968 tipped the scales at an average of 1,012 pounds (liveweight). At that, they were 90 pounds heavier than animals in 1954's herd.

The added avoirdupois of today's beef is largely the result of the rapid expansion of cattle feeding and the rise in its proportion of total slaughter.

In 1954 fed beef production totaled only 5.3 billion pounds—two-fifths of total slaughter that year. However, in the past 15 years, fed beef production has nearly tripled. It came to over 14.9 billion pounds in 1968—and represented about two-thirds of our total beef output.

Beef yields per animal are also on the increase. The average dressed weight of a 1968 beef animal was 590 pounds—or 58 percent of its liveweight at slaughter. The 1954 steer yielded only 502 pounds of dressed beef—54 percent of its liveweight. (6)

Fatal Farm Accident Rate Rises With Machines the Top Killers

Farm machines reaped a grim toll of 912 lives in 1967, thus earning the dubious distinction of being the No. 1 killer on America's farms.

In all, some 2,183 people lost their lives in farm accidents that year.

The number was 18 more than in 1966, despite a 720,000-person decline in the farm population.

As a result, the fatal accident rate in 1967 rose to 20.1 per 100,000 people, compared with 18.7 the year before.

Of every 10 people who died in on-farm accidents during 1967, four were killed by machinery. Many of these were accidents in which tractors upset and crushed the operators.

Drownings and firearm accidents, second and third in importance, claimed the lives of three more.

Falls, blows, burns, poisons, and other types killed the rest.

The pre-teen, teen, and "golden" years were particularly dangerous times of life for farm people.

Youngsters between the ages of 10 and 20 accounted for nearly 21 percent of all accidental deaths. Fatalities for those between 25 and 35 were only 6 percent of the total, the fewest for any 10-year age grouping. Accidents rose significantly after age 50 and continued high for older people, despite their declining numbers and lessened farm activity.

Machinery most frequently killed youngsters between 10 and 20 and people over 45. Drowning took mostly young lives. Seventy percent of the drowning victims were under 20; 17 percent were under 5. Accidents with firearms were heavily concentrated among people between 10 and 20 years of age.

Falls, the fourth highest cause of on-farm deaths, took only a small toll among people under 50. But they were the leading cause of death among oldsters. Two-fifths of all fall deaths occurred in the 70-or-over group.

The Corn Belt had more on-farm fatalities than any other region in 1967, the Mountain States the fewest. However, when compared with the number of people living on farms, the Mountain States had the highest rate of fatalities—28.9 per 100,000 people. The rate was lowest in the Delta States, 15.2 per 100,000. (7)



Farming the Odds

Some rural young people will find career opportunities on the farm. Most will find careers off it. The farm youths who don't face up to the fact gamble against the odds.

Few people would stake their futures on the flip of a coin.

Yet the future of the average farm youth in farming today is even more chancy.

A person has 1 chance in 2 of winning on any given coin toss.

But the average U.S. farmboy has only 1 chance in 11.6 of obtaining his own adequate-sized farm—according to 1964-65 replacement ratios.

Replacement ratios relate the number of farmboys entering the work force to the number of farmers expected to die or retire within the same period.

A study of the North Central States shows that the 1959/60 odds of owning an adequate-sized

farm were the best (1 chance in 5.1) for young Illinois farm youths; the worst (1 in 15.9) for Michigan farmboys. The U.S. average for farm youths that year was 1 chance in 9.6 of obtaining a farm of adequate size.

By 1964-65, these odds had dropped to 1 chance in 11.6. But in the North Central States area, the Illinois farmboy still had the best chance (1 in 5.7) of obtaining an adequate-sized farm

RURAL LIFE

while the worst chance (1 in 23.7) shifted to the average Wisconsin farmboy.

An "adequate-sized farm" is one large enough to provide an adequate yearly income for a family.

Such a farm is estimated as grossing \$10,000 or more a year in 1959-60 and grossing \$15,000 or more a year in 1964-65.

According to replacement ratio analysis, the chances of a rural farm girl remaining on the farm are similar to those of farmboys.

Thus it is clear that only a fraction of the young people on farms today will be able to stay and make a decent farm living, if present trends continue.

Farming opportunities seem to be better on medium-sized farms because there are more of them, but this is changing in favor of

larger-sized farms.

However, trends in farm size will probably cause today's medium-sized farm to be rated "small" in the future.

Replacement ratios indicate opportunity only. They say nothing about the assets a farmboy needs to succeed in farming.

The young farmer starting out is immediately faced with the increasingly difficult task of obtaining capital and credit.

If he has only a limited amount of land or capital, he must choose between quitting farming or taking an off-farm job to supplement his income. If he stays he will be fighting an uphill battle, struggling with a small farm.

Part-time off-farm employment can be an avenue out of farming for the older operator. It also can serve as a way for the young

farmer to achieve an adequate family income and provide funds he can use to enlarge his operation.

In 1959, 14.5 percent of all commercial class farm operators worked 100 or more days off their farms and 12.5 percent of them had off-farm earnings greater than the value of products sold from their farms.

By 1964, 16 percent of all such operators had off-farm jobs of 100 or more days duration and 9.4 percent brought home more money from them than they grossed from their farm operation.

For decades young people have been moving off the farm. As a result there are fewer younger families left and a smaller proportion of the rural population comes of age each year.

Those that do, however, would do well to weigh carefully their opportunities in farming. For today's youth, chances are poor in farming except for the few who can begin with large well-financed farms. For most, chances of financial success are greater if they prepare to enter fields other than farming. (8)

THE FARMBOY'S ODDS

Area	Opportunity for a rural farm male youth to obtain an adequate-sized farm with—		
	\$10,000 or more gross annual sales in 1959-60	\$15,000 or more gross annual sales in 1964-65	Change in odds
	1 chance in		Percent
East North Central States	9.8	12.0	22.4
Illinois	5.1	5.7	11.8
Indiana	9.8	12.2	24.5
Ohio	12.4	15.5	25.0
Michigan	15.9	18.4	15.7
Wisconsin	14.5	23.7	63.4
West North Central States	8.1	10.7	32.1
Iowa	6.5	7.6	16.9
Kansas	5.6	8.2	46.4
Minnesota	12.6	18.0	42.9
Missouri	10.9	15.1	38.5
Nebraska	5.7	7.8	36.8
North Dakota	10.6	13.6	28.3
South Dakota	8.9	10.8	21.3
North Central States	8.8	11.3	28.4
United States	9.6	11.6	20.8

Special District Laws Already On Books Help Appalachian Planners

An economic planner looking for a way to make the most of the natural resources in impoverished Appalachia can:

Work within the given institutional structure, or:

Superimpose another structure on top of the existing one.

But before he can do either he must know what laws and institutions dealing with natural resources are now in effect.

A study of laws in 11 Appalachian States reveals that 66 statutes allowing creation of natural resource special districts are already on the books.

Soil and water conservation

districts are typical examples.

Special districts exist outside the regular structure of civil government even though they are usually established through State legislation.

They are governed by an elected or appointed board of directors, they almost always have a specified territorial jurisdiction. And they usually have some taxing power.

These natural resource special districts exert an indirect influence on economic development through such activities as programs that encourage individual farmers to practice erosion control. When widely adopted, such practices effect cropping patterns of an entire farming community.

The special districts exert a direct influence through control of the water level in streams, regulation of water charges, and allocation of increasingly scarce water supplies among users.

Special districts may hasten, retard, or redirect the urbanization of farm lands by providing utilities to home owners and businesses.

Planning, however, is not usually a function of these districts. This is traditionally the job of city, county, and State governments, though special districts may—and many do—participate in the formulation of plans.

Among the 1,961 Appalachian natural resource special districts reported in the 1967 Census of Governments are the following types:

Soil conservation districts. These districts are set up to:

—Conserve the soil and control soil erosion.

—Prevent floodwater and sediment damage.

—Further water conservation and development and thereby preserve wildlife, protect the tax base and public lands, and promote the health, safety, and general welfare of the people of the State.

—Conduct surveys and develop

plans for water resource control (one State only).

Water supply districts. Primary purpose of these is to provide or develop and conserve water facilities. Other functions may include sewage disposal, fire hydrants, and, in one State, complete construction and operation of the water supply system.

Sanitation districts. Sewer and drainage facilities, irrigation, regulation of stream flow, and pollution prevention are responsibilities of these districts. In one State sanitation districts also provide garbage and trash disposal as well as these services.

Drainage and flood control districts. Objectives of these encompass related programs such as land reclamation and levee construction.

Recreation and park districts. These districts provide a recrea-

tional system. In one State the district also maintains forest preserves and sponsors a museum of natural history for the benefit of residents and visitors alike.

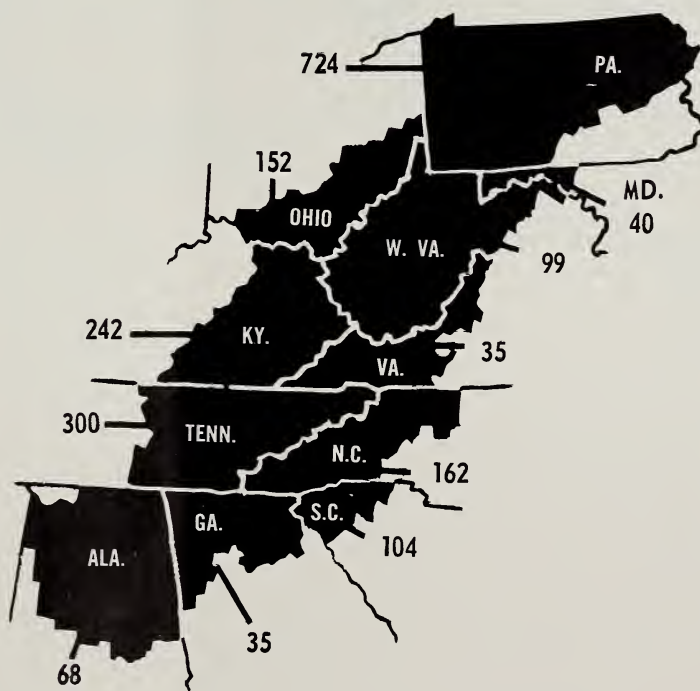
While the laws vary in each Appalachian State, they all are relatively explicit on how special districts are to be formed.

But they say nothing specific about general overall planning. Nor do they formally define the financial relationship of these districts to other government units.

And—in stark contrast to the pinpointed procedures for setting up these special districts—the statutes are vague on procedures for changing or abolishing the special districts when they are no longer useful.

This makes it difficult for planners to modify or cut out programs as the needs of economic development dictate. (9)

NUMBER OF SPECIAL DISTRICTS IN APPALACHIAN COUNTIES



DAIRY FRESH: The Different Dry Milk



Rare in the annals of dairy history is a powdered milk that can hold its own as a beverage. But Dairy Fresh, a new whole milk powder, appears able to do it.

Dairy Fresh, a new dry whole milk powder developed by USDA research engineers looks as if it may easily hold its own in the supermarket space race.

This is good news for the dairy industry—which has long sought for a beverage quality dry whole milk with a long shelf life.

Nonfat dry milk powders are nothing new, of course. They've sold on supermarket shelves for years. But powdered whole milk, prior to Dairy Fresh, was not generally sold in retail outlets but to the institutional trade, mainly for cooking and baking.

However, in its first market test in nine supermarkets in the Lansdale, Pa., area, Dairy Fresh proved that dry whole milk isn't always a flavor failure as a beverage.

In fact, just about everyone who bought and used the new powder couldn't tell the difference between Dairy Fresh and fresh fluid milk.

ERS economists recently finished evaluating the results of Dairy Fresh's initial market test. Here are some of the highlights:

Sales of Dairy Fresh averaged slightly less than 2 cases per store for each of the 11 weeks the powder was on the market. Each case contained 24 cans. A can of Dairy Fresh can be reconstituted to the equivalent of one quart of fresh whole milk with 3.25 percent butterfat.

Dairy Fresh was sold from the refrigerated dairy case since it needs to be stored at 40° F. for adequate storage stability. Its shelf life is upwards of 1 year.

The only promotion for the product consisted of posters mounted over Dairy Fresh displays and in-store demonstrations during the first week. None of the

major advertising media were used to promote sales.

Nevertheless, Dairy Fresh sales were brisk. An estimated 1,000 shoppers bought the product during the first week of the market test. Some of these shoppers were later interviewed on their opinions of the new product.

Virtually all Dairy Fresh users gave it very high scores when asked to rate its taste, wholesomeness, cost, and richness. And when asked to compare Dairy Fresh with fresh fluid milk, the great majority considered it as good or better than fresh milk on all these counts except richness.

Three in 10 Dairy Fresh users considered the powdered milk less rich than fresh fluid milk. But Dairy Fresh won hands down on ease of storage.

Acceptance of Dairy Fresh was evidenced in yet another way. More than three-fourths of the consumers who bought and used the new product said they planned on buying more. And in a followup interview, a third of the customers said they actually had made a second purchase.

In the Lansdale test, checks of Dairy Fresh sales and sales of other dairy products sold from the refrigerated dairy case indicated the powder was not cutting into other product's market.

At the price it was sold—4 cents per quart below fluid whole milk in 2-quart cartons—Dairy Fresh appeared to be opening up new outlets for milk in camping, resort homes, and special uses. Fluid milk sales during the 12-week test period were not affected by Dairy Fresh sales.

However, the powdered milk could conceivably cut into fresh fluid milk sales if it were sold at a sufficiently lower price. In this event, Dairy Fresh would probably compete most keenly with fresh fluid milk in areas where fluid milk prices are relatively high, such as the Eastern Seaboard. (10)

In Sharp Shift of Sandbag Fabric, Cotton No Longer Predominates

The old cotton or burlap sandbag has stemmed a lot of high waters in its day. But now it's been virtually washed out by man-made fibers.

For the first time in the history of sandbags bought for military uses, there was no cotton content in the 227 million sandbags purchased in fiscal year 1969. More durable acrylic bags accounted for 58 percent of the year's total, and cheaper polypropylene made up 42 percent.

Five years ago, about 75 percent of our 50-million sandbag purchases were cotton osnaburg, and the rest were burlap.

By 1968, cotton's share of 532-million-bag purchases (a record level) had dropped to 18 percent. If cotton content in 1968 had been at the 1965 level, about 276,000 bales of cotton would have gone into these sandbags—instead of the 66,000 bales actually used. (11)

"Specials" Don't Really Cut Much Into Cross-the-Board Meat Prices

When a sign over the meat counter heralds a cut-rate for steaks, it may help the housewife decide what to buy.

But it adds confusion to the already complex factors that confront statisticians and economists who have the job of figuring out U.S. average food prices and marketing spreads.

Two studies were initiated by the Economic Research Service to appraise the effects of "specials" or the average price for all meat cuts combined.

Both studies were initiated partially in response to the conclusion of the National Commission on Food Marketing that retail prices and spreads are overstated—especially for beef,

pork and poultry—because they don't fully account for specials.

The first study, completed with the help of the Bureau of Labor Statistics, checked to see whether the BLS's average U.S. retail prices—used by ERS in calculating marketing spreads—adequately reflect lower weekend prices resulting from meats on special.

In the second study, ERS surveyed a total of 20 retail chain divisions in five cities to examine the effect of specials on average meat prices.

The BLS study showed that while the U.S. price averages quoted by BLS don't take weekend specials fully into account, they really do reflect most of the price effect of "specials."

In most cases there was a difference of less than 1 percent between prices of individual pork and beef cuts reported by BLS and prices that would have been reported if all weekend specials had been included in calculations.

This minor difference is attributed to the fact that many stores offer specials in the beginning of the week as well as on weekends, and because special prices for an individual cut of meat are offered by only a small proportion of stores at any given time.

In the five-city study, specials were found to lower the average retail price of all cuts combined for both beef and pork in two ways.

First, because the average is naturally down when some of the prices used to calculate the average are lowered by specials. This is called the "price effect."

Secondly, when a particular cut is on special, more of it is sold. The increase varies from store to store, from cut to cut, and from week to week. For example, one store sold 19 times more ham than normal when it was on sale, or "specialized." But most stores sold only two to five times as much of most specialized items.

With this increase of sales

volume that is generated by specials, it's necessary to give more than usual weight to an item's lower-than-normal price when figuring the overall average price. This factor is called the "volume effect."

As specials ring up greater sales volume, which affects combined cut price averages, the ERS surveys suggested that some adjustments of methods used to calculate U.S. average retail prices—and marketing spreads—were needed.

These changes have been made. They became effective November 1969.

Though methods of computing average retail prices for beef and pork in most all cases accounted for the price effect of specials and part of the volume effect, the new procedures more nearly reflect the full impact of specials on beef and pork prices—averaged to encompass all cuts. (12)

Growers Get Biggest Share Of Rise in Fruit, Vegetable Prices

The grower and the marketing system each got about an equal amount of the extra dollars consumers paid for fresh fruits and vegetables in 1968.

But the man with the orchard or vegetable field got a relatively larger percentage increase over a year earlier.

Fresh fruits and vegetables were generally in short supply in 1968. As a result, the retail cost of fresh fruits and vegetables in the market basket averaged 11 percent higher than in 1967. This increase was more than double the overall increase in the retail cost of farm foods.

The marketing spread—the difference between retail cost and farm value—for fresh fruits and vegetables widened by 8 percent in 1968, considerably more than for any other food group. The increase in the marketing spread

accounted for about half of the rise in the retail cost.

The farm value (gross return to the grower) jumped 17 percent in 1968. While farm value went up by a larger percentage than the spread, the increase in the farm value also accounted for about half of the dollar increase in the retail cost of fresh fruits and vegetables.

The farm value of fresh fruits was 30 percent higher in 1968 than in 1967. The retail cost averaged 18 percent higher; the farm-retail spread widened by 13 percent.

The increase in the farm value of fruits was caused primarily by a sharp decline in production of oranges and apples.

The 1967-68 orange crop was about one-third less than the previous crop. As a result, the average U.S. price of oranges at the packing house door was \$3.07 per box for the 1967-68 season, while only \$1.85 a year earlier.

The retail price of Florida oranges marketed in New York City during the 1967-68 season averaged almost 20 percent higher than a year earlier.

Marketing charges amounted to 7.8 cents per pound in both the 1968 and the 1967 seasons. So, most of the increase went to Florida orange growers and packers.

Apple prices, too, rose sharply in the first half of 1968 due to low apple production in 1967. (It was about 8 percent below the 1962-66 average.)

With a decline of about one-fifth in Washington apple supplies, retail prices of Washington Red Delicious fancy apples rose about 2 cents per pound to an average 28.3 cents a pound in New York City during the 1967-68 season.

Returns to the Washington grower and packer increased 3 cents per pound. Since the return to the grower and packer increased more than the retail price, the spread declined.

The retail cost of fresh vegeta-

bles averaged about 6 percent higher in 1968 than in 1967. Farmers received record high prices during the first half of the year because a decline in the winter and spring vegetable crops caused a shortage of fresh vegetables. (Winter tonnage of fresh vegetables was 6 percent smaller in 1968 than in 1967, and spring was down 4 percent.)

The farm-retail spread for fresh vegetables continued the upward trend of the past decade.

Tomatoes, however, didn't follow the general trend.

Tomato prices went up substantially more than the average of all vegetables in 1968. The retail price of Florida tomatoes in New York City in the first part of the year averaged 24 percent higher than the same period a year earlier. Most of the increase went to tomato growers and packers, while the farm-retail spread was about the same in 1968 as in 1967 (13)

Mohair Moguls Got High Prices In 1969 Despite the Modest Clip

Texans tending their flocks of Angora goats (and Texans are about the only people in this country who go in for this enterprise) got more money per pound of mohair this year.

Prices averaged about 18 cents more (grease basis) between January and September 1969 than they did last year. They ranged from 57 cents early in '69 to 70 cents between April and September—a good bit above the 1967 average of 41 cents and the 1968 average of a nickel more.

Since U.S. demand for mohair declined in 1969—and our exports also fell off—the price hike is hinged to reduced supplies. Our mohair clip "harvest" has fallen sharply the past 3 years. Stocks were smaller in early 1969. And we had 18 percent fewer goats than a year earlier. (14)

BLUE RIBBONS FOR FAR EAST FARMERS

Much of the Far East is likely to recall 1969 as a year of bumper harvests, increased exports, and better balance-of-trade status—but the picture is not all rosy.

The Far East, for the most part, appears to be turning the decade on an agricultural upbeat.

Output of farm products in the area as a whole during the 1969/70 crop year is expected to surpass the previous year's level. Most countries should share in the increase.

Weather has been generally favorable this year. And Far East farmers themselves have brightened the outlook considerably by their wider use of chemical fertilizers, improved grain varieties, irrigation, multiple cropping, and mechanization.

The whole Far East agricultural picture (excluding Communist China) covers a vast triangle with Japan, Indonesia, and West Pakistan as the "corners" and at least nine other major nations within the vast regional frame.

Among the highlights:

Exports have increased and foreign trade balances have improved in the majority of Far East nations (at least through the first half of '69).

Though industrial items get the credit for much of the export

gain, shipments of farm products also helped. Higher prices for some agricultural export commodities have been a favorable factor. But in several countries, gains have been partly or completely offset by declines in export volume and prices for rice.

The rice harvest in 1969/70 promises to reach a new high for the third year in a row.

All of South Asia—including Indonesia, Thailand, Burma, and Malaysia—expects to set new records. Output in India alone is forecast at 63 million tons (in terms of paddy); it was 59.6 million tons in 1968/69.

Despite the Far East's big rice crop, the outlook for the area's most important crop is not as bright as it has been in the past.

Foreign sales by exporting countries and purchases by traditional importers are both down. The combination of reduced trade and increased output has contributed to a price drop.

The Far East also has a record wheat harvest. The area, however, is a traditional importer. And as most Asians are eating more wheat than formerly, a step-up in 1969/70 imports is likely.

Feed grain production is on the rise, too—but not enough to satisfy up-and-coming poultry and livestock producers. Thus, import

needs are heavier.

Thailand—the regions major corn producer—expects alltime high exports. (It has agreements with both Japan and Taiwan covering corn trade in the Thai marketing year that began September 1.)

A 1969/70 rise in Far East oilseed output is mainly due to South Asia's good weather. India, for example, expects a 5.8-million-ton peanut harvest following its poor 1968/69 crop of only 4.5 million tons. But despite the improved outlook, imports of oilseeds—including U.S. soybeans—will probably continue to trend upwards.

From a country standpoint, Japan is by far the biggest Far East importer of farm products. It's also our top cash market for food and fiber.

Foreign pressure on Japan to liberalize its trade restrictions has been building up. And in September, Japan announced that it would remove or ease trade barriers on 22 agricultural items before the end of 1969.

The proposed liberalization list includes soybean and rapeseed meal, cake mixes, fresh apples, fruit purees, and unrendered pig fat. But it does not include many exportable crop and livestock items that are of interest to U.S. producers and traders. (15)

First Commercial Red Palm Oil Factory in Liberia Makes Debut

Liberia—one of Africa's oldest independent nations—is adding a new agriculturally based industry to its economy.

Red palm oil is the product.

The maiden industry made its debut when Liberia's first commercial plant for processing the oil turned out its first 25 tons.

The plant is located on an American petroleum company

plantation in Grand Bassa County. New plantings of the oil palms were scheduled to be completed on 5,000 acres by the end of this year.

Considerable land has also been cleared for a 3,500-acre oil plantation being developed in Liberia's Grand Cape Mount County by the West Africa Investment and Finance Corporation.

A French research organization IRHO (Research Institute for Tropical Oils and Oil-Bearing Materials) is providing technical assistance and seeds for this new

plantation, and an oil palm nursery is furnishing the seedlings for transplanting.

"Red" palm oil, incidentally, isn't exactly rare. Most all oil palms—which run to over 1,000 species—produce oil that's colored a deep orange red because of the large amount of carotene it contains, and the more carotene the brighter the red.

Refining doesn't change the shade much, but in further processing palm oils are usually bleached to a color similar to that of other vegetable oils. (16)

THE COMMON AGRICULTURAL POLICY costs the European Community an estimated \$14.4 billion each year.

These costs are borne by European consumers and taxpayers through:

—*Expenditures by the European Agricultural Guidance and Guarantee Fund (FEOGA) of the EC in the form of reimbursements to member governments for export subsidies and internal market intervention, and from grants for structural improvements in production and marketing.*

(A "Special Section" was established for the 3 years 1967/68-1969/70 to compensate grain producers in West Germany, Italy, and Luxembourg for income losses due to the price reductions for grain which took effect on July 1, 1967.)

FEOGA'S budget is financed by variable levies collected on agricultural imports and by contributions assessed on member states. About 40 percent of the Guarantee Section will probably be financed by levy collections in 1968/69. Other expenses will be covered by assessments.

—*Spending by member countries of the EC in support of domestic agriculture. These expenditures consist primarily of subsidies on non-CAP commodities, tax rebates, grants or loans for structural improvements, and administrative expenses.*

—*Higher food prices paid by consumer for CAP-organized commodities produced domestically at prices above those in the world market.*

The cost of CAP to the EC is as follows:

Million U.S. dollars

EC national agricultural budgets:

Belgium (1968)	89
Netherlands (1968)	241
Germany (1969)	1,234
France (1969)	2,665
Italy (1967)	1,275
Luxembourg (1969)	13
Total	5,517

1968/69 Estimated FEOGA expenditures:

Guarantee section	2,010
Guidance section	285
Special section	138
Total	2,433

Excess consumer costs on EC produced and consumed commodities:

Soft wheat	706
Durum wheat	64
Sugar	860
Eggs	281
Poultry	254
Pork	839
Beef and veal	1,950
Butter	1,335
Whole dried milk	47
Cheese	406
Other	137

Less double counting of imported feed grain costs included in FEOGA

	—434
Total	6,445

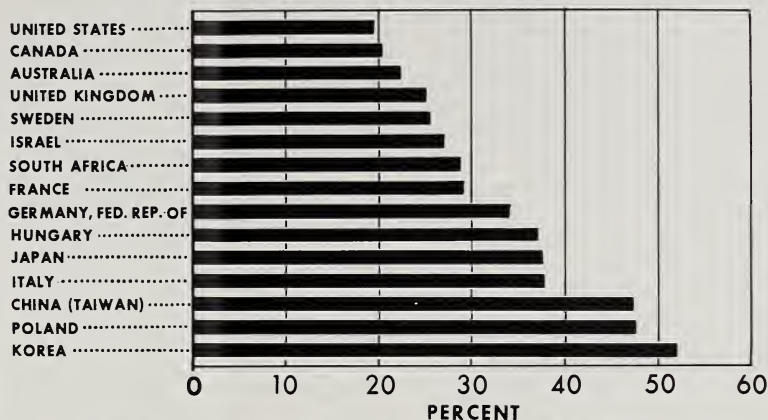
GRAND TOTAL COST (17) 14,395

PEOPLE OF THE UNITED STATES still spend a smaller share of their total budgets on food than any other country. Higher prices and a growing population have meant more dollars spent for food over the years. But food spending has not quite kept pace with total incomes and outlays.

A look at world spending for food between 1960 and 1966 (latest data available) shows a steady cutback in food bills as a share of total expenses in some nations—including Canada, Austria, Finland, France, West Germany, the United Kingdom, Poland, Israel, and Japan.

Elsewhere, percentages fluctuated—tending to fall in Belgium, Scandinavia, Bulgaria, Greece, and Hungary; rise in Ceylon and Korea. (18)

FOOD'S SHARE OF TOTAL EXPENDITURES, SELECTED COUNTRIES *



* EXPENDITURES FOR FOOD AS A PROPORTION OF TOTAL CONSUMER EXPENDITURES. BASED ON UNITED NATIONS DATA, 1966.

U. S. DEPARTMENT OF AGRICULTURE

NEG. ERS 6997-69 (7) ECONOMIC RESEARCH SERVICE

Syria's Farmers Pin Hopes On Project To Harness Euphrates

Syrian farmers have been frustrated for decades by the uncontrollable flooding of the Euphrates River—which by legend once watered the Garden of Eden.

Now at long last, Syria has a project underway to harness the Euphrates.

Construction of a dam on the river, at Tabaga, was begun last year. This major project is designed to add thousands of acres of irrigated cropland—as well as electrical power—to Syria's resources and thus help to advance the country's economic and social development.

Current plans as approved by the Syrian government call for construction of a dam some 8,200 feet long and about 197 feet high. Cost of the project has been estimated at \$628 million. The USSR is providing financial and technical assistance.

This first phase of the Euphrates project is scheduled for completion in 1973 and is expected to provide around 800,000 kilowatts of electricity and irri-

gation for some 1.5 million acres of farmland. Only about 400,000 acres are now pump-irrigated from the Euphrates.

The second phase, scheduled for completion in the late 1970's,—will make it possible to irrigate an additional 900,000 acres. And a pumping and canal system will increase total irrigated cropland to nearly 2.1 million acres.

The narrows of the river at Tabaga were agreed upon as the best dam site. Geologically, this location and the storage area above the dam site should be well adaptable for drawing of irrigation water and for installation of the power plant.

In conjunction with phase two of the project a pilot program is planned for a 70,000-acre tract where 50,000 farmers would be resettled for training in irrigation techniques. These farmers now live on land that will be submerged by the dam's reservoir.

When it is completed, the new dam in Syria will reportedly be second only to the United Arab Republic's Aswan High Dam in value to the Arab world and its sphere of influence. (19)

Industrial Nations Figure Strong In Top 50 U.S. Export Markets

Commodities produced by U. S. farmers were exported to over 150 countries in the past 6 fiscal years. But 15 countries took almost three-fourths of our total agricultural shipments abroad.

The biggest increases in foreign purchases between 1963/64 and 1968/69 show up in exports to Japan and major industrial nations of Western Europe.

Exports to Japan in the 6-year period averaged \$847 million a year—peaking at \$939 million in 1966/67, then slipping to \$839 million last fiscal year.

Exports to the European Community increased at times. But that area's rising farm output—encouraged by agricultural policies—has reduced demand for U. S. products since 1956/66. Our agricultural sales to the EC totaled \$1.3 billion in 1968/69.

Canada and the Netherlands are among our top markets, but a sizable part of these exports is transshipped to other countries—mainly in Europe. (24)

So-So Is 1980 Outlook Envisaged For Central American Agriculture

Rapid population growth and some increases in per capita income will continue to increase the demand for agricultural products throughout Central America, judging by findings of a recent ERS study that looks forward as far as 1980.

Increasing urbanization may further strengthen this trend. But there is little likelihood that agricultural output will be raised enough to compensate for the increased demand—especially if the population of the region continues to grow at its annual projected rate of about 3.5 percent a year.

Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama, and British Honduras are the countries that comprise Central America, as defined in the recent study report.

By 1980, according to the ERS projections, the rate of growth in area harvested will show an overall increase. And the same is expected to be due for overall yields of nine important items.

Largest gains will be wheat, corn, sugar, and coffee. Some increases are also predicted for

grain sorghums, beans, cotton, rice, and tobacco.

However, the region may attain self sufficiency or even be able to produce a small exportable surplus of rice, vegetable oils, and potatoes.

Agricultural methods in Central America vary widely. They range from primitive or subsistence-type farming—especially in the case of many food staples for domestic use—to highly sophisticated techniques. The latter are used most extensively in production of major export commodities, such as coffee and sugar.

Sugar exports are projected to increase from 178,000 metric tons during the 1962-64 period to 437,000 tons in 1980.

Coffee bean exports should also show an increase—from 291,000 to 384,000 tons during the same period.

Cotton lint exports are expected to rise from 214,000 to 365,000 tons.

The exportable surplus of bananas is expected to decline slightly.

(Corn is the staple food item in Guatemala, Honduras, El Salvador, and Nicaragua. Rice predominates in Panama, British Honduras, and Costa Rica. Wheat is an important food item in

Costa Rica and Panama but is also a food item elsewhere. In all countries, beans are the second staple food item.)

In addition to its traditional export commodities, including some beef, Central America has the resources to produce a number of other agricultural commodities for export. However, this possibility is not likely to become a reality between now and 1980.

The chief obstacle to production for export—and deterrent even for self sufficiency—is the relatively high rate of population growth throughout the area.

At the same time, other factors also make modernization of agriculture difficult. Low incomes and inadequate transport facilities, for example, limit trading opportunities both at home and abroad.

On the import side, milk needs are expected to mount more than any commodity by 1980, though some increase is also likely for imports of eggs, poultry, meat, animal fats, tobacco, and wheat.

Insofar as trade with the United States is concerned Central America is expected to remain a good market for milk, and also—though at a decreasing rate—for wheat, corn, grain sorghums, and eggs. (20)

SHARP INCREASES IN CENTRAL AMERICA'S CORN AND WHEAT HARVESTS PROJECTED FOR 1980

Crops	Area harvested		Rate of growth	Yields		Rate of growth
	1962-64	1980		1962-64	1980	
	1,000 hectares		Percent	Kilograms per hectare		Percent
Wheat	37	41	0.6	768	1,201	2.7
Rice	220	335	2.5	1,239	1,541	1.3
Corn	1,569	1,855	1.0	896	1,363	2.5
Grain sorghums	225	275	1.2	949	1,052	0.6
Beans	301	428	2.1	494	653	1.7
Sugar	131	178	1.8	49,600	70,000	2.1
Coffee	645	742	.1	500	634	1.2
Cotton (lint)	323	500	2.6	787	878	.7
Tobacco	16	20	1.3	725	886	1.2

¹ Unhusked. ² Cane. ³ Estimated.

What's Your Grade Grade?

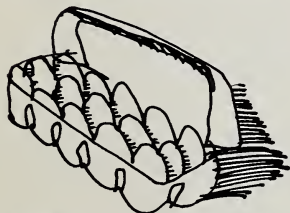
Name the USDA grades for:



1. Beef steak _____



2. Bacon _____



3. Eggs _____



4. Butter _____



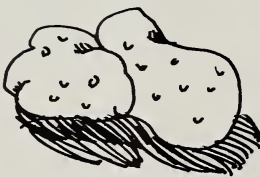
5. White bread _____



6. Margarine _____



7. Fluid milk _____



8. Fresh potatoes _____



9. Fresh apples _____



10. Turkey _____

(Correct answers listed on page 18)

Check your knowledge of USDA food grades on this quiz and see how it stacks up against that of 3,000 U.S. homemakers recently interviewed during an ERS study.

If you got even five right answers on this quiz you know more about USDA grades for foods than many homemakers contacted in a recent ERS study.

Of the 3,000 consumers interviewed, more than half did not know a correct grade for any of these products except eggs. Only a third of the homemakers flunked the egg test.

Consumers who did know something about USDA grades reported them a valuable aid in purchasing foods.

Generally, the only two foods on the list that many consumers checked for the USDA grade before buying were eggs and beef steak. (Among the foods mentioned, these are the ones most often marked with the grade.) But even for eggs and steak, only 3 in 10 of the homemakers reported making a grade check.

Some shoppers may not have had an opportunity to check grades, however. Not examined in the study was the availability of graded foods in the cities where the survey was made. And this is a factor that varies widely—not only from city to city but even among stores in the same city.

Many of the homemakers interviewed believed there were USDA grades for all foods—and many said they usually purchased Grade A, whether or not there is actually such a grade for the product in question.

Actually, USDA grading is a voluntary service, provided on a fee basis, in contrast to USDA inspection for wholesomeness which is required under law for meat and poultry products shipped in interstate commerce.

The USDA grades were established to meet the needs of producers, dealers, and consumers

for a uniform "yardstick" with which to measure important variations in quality.

The producer is interested in getting the price to which the quality of his product and the condition of the market entitle him.

The processor and the distributor need a quality gauge to facilitate buying and selling, particularly at long distances.

And the consumer wants assurance that he is obtaining a product of a quality in line with the price paid.

The U.S. standards, used by USDA in grading programs, provide a means of describing quality in a nationally understood language of "grades."

Because the grade standards for each food cover the entire range of quality, the number of grades for a product is based on its variability. For example, eight grades are used to span the range of quality for beef—but there are only three grades used for frying chicken.

Most retail stores offer their customers one grade, though—the grade that satisfies most shoppers.

USDA Choice, for example, is the only grade of beef available to customers in many stores—although a few stores offer two grades, such as Prime and Choice.

Eggs are the most notable exception to the "one grade rule." Many stores offer not only U.S. Grade A eggs, but also the premium quality U.S. Grade AA and sometimes the lower quality U.S. Grade B as well.

In addition to beef and eggs, the foods shoppers are most likely to find carrying the USDA grade mark include chicken, turkey, lamb, and butter.

Grade terminology differs from product to product, largely because the grades evolved, in most cases, on the basis of long-standing industry practices and trade terminology.

While few of the homemakers

interviewed in the ERS study were very knowledgeable about USDA grades, they did not seem to feel the terminology employed was confusing.

Letter designation, such as AA, A, or B, were just as easy for the shoppers to understand as were word designations, such as Prime or Extra Fancy. Numerical grades, however, weren't popular.

What the 3,000 women knew about grades was mostly gleaned while shopping. (21)

What's Your Grade Grade?

Here are the answers to the USDA grade quiz on page 17.

1. U.S. Prime, Choice, or Good.
2. None.
3. U.S. Grade AA, A, or B.
4. U.S. Grade AA or A.
5. None.
6. None.
7. None. (Grade A on milk is not a USDA grade but an indication that the milk has passed State or local requirements for sanitation in production and handling.)
8. U.S. No.1.
9. U.S. Extra Fancy, Fancy or No. 1.
10. U.S. Grade A.

Grades that most consumers won't encounter at retail are: U.S. Standard, Commercial, Utility, Cutter, and Canner beef steak; U.S. Grade B butter; U.S. Fancy or No. 2 potatoes; U.S. No. 2 apples; and U.S. Grade B or C turkey.

Tiptoeing Through Kitchen Isn't Necessary With Food Surfactants

"Don't jiggle the floor. Don't slam the door. And whatever you do, don't peek."

Cake baking back in Grandma's day was a big event. Every cook had his own theory about what to do and what not to do to assure a perfect cake. But despite all precautions, few cooks were spared the disgrace of a

cake that failed to rise.

Bakery products turn out more successful today than they used to—thanks in large part to the use of food "surfactants" (short for surface active agents).

These surfactants, also called emulsifiers or bread softeners, are used in most commercially prepared baked goods as well as in many commercially prepared mixes that homemakers can bake at home.

Food surfactants are commonly used to enable oil and water to mix and form an emulsion.

But they do other things, too.

They retard hardening, reduce stickiness, prevent the loss of gloss or bloom, improve the opacity of sugar coatings, reduce pastiness, improve palatability, disperse flavor components, prevent seepage of oil, and control crystallization.

Because of their versatility, surfactants show up in items other than bakery products. They're widely used in shortening, margarine, peanut butter, frozen desserts, candy, salad dressings, and pasta products.

The technology of blending food surfactants has greatly helped the development of the ever increasing variety of prepared food products.

Surfactants enable manufacturers of various food products to cut down on the total amount of fat they use. Also, bakers can increase the ratio of sugar to fat, making cakes both sweeter and lighter.

Some fat always has to go into bread dough to make it workable. But there's not as much fat in bread as there used to be.

Prior to World War II, and the widespread use of emulsifiers, fat accounted for about 4 percent of the ingredients in bread.

By 1950, fat usage in bread was down to about 3 percent. Now it's only about 2 percent. The decrease is due mostly to the surfactants—especially monoglyceride emulsifiers. (22)

THE ILLINOIS BEEF INDUSTRY CHARACTERISTICS TRENDS AND INVENTORIES. N. R. Martin, Jr., and R. N. Van Arsdall, Farm Production Economics Division, and D. C. Petriz, Illinois Agricultural Experiment Station. Ill. Agr. Expt. Sta. AERR-101.

Beef production is important to both Illinois and the Nation. Resources in the State seem well suited for beef production. Yet over the past 20 years Illinois' beef industry has not kept up with the national growth rate. (See Farm Index, this issue.)

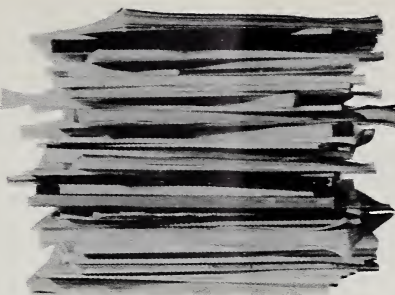
CONGO'S AGRICULTURAL ECONOMY IN BRIEF. F. Degiorgio, Foreign Regional Analysis Division. ERS-For. 282.

The Democratic Republic of the Congo (Kinshasa) is gaining momentum in its economic recovery from the turmoil following independence from Belgium in 1960. Civil and political disorders had reduced total agricultural production about one-fourth from the 1959 high to the 1965 low. Since 1965, production has been slowly recovering.

STATE AND LOCAL GOVERNMENTAL FINANCES IN THE NORTH CENTRAL STATES, 1964-65. L. B. Perkinson, Economic Development Division. AER-168.

Much has been written about the changes in the revenue and expenditures of State and local governments. But few comparisons between States have been presented. This study was undertaken to determine the variations in State and local governmental finance in a rather homogeneous region of the United States.

THE EFFECTS OF TOBACCO PRICE AND ALLOTMENT VARIATIONS ON FARM ORGANIZATIONS AND INCOMES, NORTHERN PIEDMONT AREA, NORTH CAROLINA. J. G. Sutherland, Farm Production Economics Division, in cooperation with North Carolina Agricultural Experiment Station. No.



RECENT PUBLICATIONS

The publications listed here are issued by the Economic Research Service and cooperatively by the State universities and colleges. Unless otherwise noted, reports listed here and under Sources are published by ERS. Single copies are available free from The Farm Index, OMS, U.S. Department of Agriculture, Washington, D.C. 20250. State publications (descriptions below include name of experiment station or university after title) may be obtained only by writing to the issuing agencies of the respective States.

Carolina Agr. Expt. Sta. ERR-9.

An analysis of the effects of a wide range of product prices and allotments for flue-cured tobacco on resource use, farm organizations, production of major commodities, and farm incomes of operators of small, medium, and large tobacco farms in the Northern Piedmont area of North Carolina.

REGIONAL AND SECTORAL ANALYSIS OF THE WHEAT-FLOUR ECONOMY. B. H. Wright, Marketing Economics Division. MRR-858.

A framework for evaluating the effects of change in transportation rates on the least-cost location of the flour milling industry and the consequent potential impact on different sectors and regions of the wheat-flour economy. (See Farm Index, June 1969.)

RURAL INDIAN AMERICANS IN POVERTY. H. W. Johnson, Economic Development Division. AER-167.

Most Indian Americans are rural residents, and they are poor. They are not attuned to the modern technological economy of America. Nor are they certain in what direction their future lies—within the larger society or separate from it; on the reservation or away from it; as Indians or as Indian Americans. A survey of the depths of their disadvantages.

AGRICULTURAL STATISTICS 1969. Prepared under the direction of the Yearbook Statistical Committee. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402. Price \$2.75 (paper cover). Unnumbered.

AGRICULTURAL STATISTICS is published each year to meet the diverse needs for a reliable reference book on agricultural production, supplies, consumption, facilities, costs, and returns. Three types of data are included in this volume. Statistics presented in many of the tables represent actual counts of the items covered. A large number of other tables, however, contain data that are estimates by the Department of Agriculture, which in many cases are supplemented by a third type of data obtained in census enumerations.

HANDBOOK OF AGRICULTURAL CHARTS 1969. Economic Research, Statistical Reporting, Agricultural Research, and Foreign Agricultural Services. AH-373.

The 158 charts in this book illustrate every angle of U.S. agriculture and factors affecting it. Depicted are the general economy, farm production, trade, marketing, farm population, food prices, and family levels of living through 1968. Many appear in Situation reports and are updated several times a year.

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MINNESOTA	St. Paul	55101		Box 3354)	
	(St. Paul Campus)				
MISSISSIPPI	State College	39762			

Numbers in parentheses at end of stories refer to sources listed below:

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Speech (S); published report (P); unpublished manuscript (M); special material (SM); *State publications may be obtained only by writing to the experiment station or university cited.

ECONOMIC TRENDS

ITEM	UNIT OR BASE PERIOD	'57-'59 AVERAGE	1968		1969		
			YEAR	OCTOBER	AUGUST	SEPTEMBER	OCTOBER
Prices:							
Prices received by farmers	1910-14=100	242	261	262	279	275	277
Crops	1910-14=100	223	229	228	220	214	217
Livestock and products	1910-14=100	258	288	291	330	328	327
Prices paid, interest, taxes and wage rates	1910-14=100	293	354	358	373	374	376
Family living items	1910-14=100	286	335	339	352	354	355
Production items	1910-14=100	262	292	292	304	304	305
Parity ratio		83	74	73	75	74	74
Wholesale prices, all commodities	1957-59=100	—	108.7	109.1	113.4	113.6	113.9
Industrial commodities	1957-59=100	—	109.0	109.7	112.8	113.2	113.7
Farm products	1957-59=100	—	102.2	101.2	108.9	108.4	107.7
Processed foods and feeds	1957-59=100	—	114.1	114.4	121.5	121.3	121.4
Consumer price index, all items	1957-59=100	—	121.2	122.9	128.7	129.3	—
Food	1957-59=100	—	119.3	120.9	127.4	127.5	—
Farm Food Market Basket: ¹							
Retail cost	Dollars	983	1,118	1,131	1,197	1,196	—
Farm value	Dollars	388	435	435	495	483	—
Farm-retail spread	Dollars	595	683	696	702	713	—
Farmers' share of retail cost	Percent	39	39	38	41	40	—
Farm Income: ²							
Volume of farm marketings	1957-59=100	—	126	186	125	143	185
Cash receipts from farm marketings	Million dollars	32,247	44,386	5,318	3,890	4,482	5,600
Crops	Million dollars	13,766	18,847	2,767	1,543	1,904	2,800
Livestock and products	Million dollars	18,481	25,539	2,551	2,347	2,578	2,800
Realized gross income ³	Billion dollars	—	51.1	—	—	55.3	—
Farm production expenses ³	Billion dollars	—	36.3	—	—	38.8	—
Realized net income ³	Billion dollars	—	14.8	—	—	16.5	—
Agricultural Trade:							
Agricultural exports	Million dollars	4,105	6,228	464	438	471	—
Agricultural imports	Million dollars	3,977	5,024	396	408	399	—
Land Values:							
Average value per acre	1957-59=100	—	⁵ 170	—	—	—	⁶ 179
Total value of farm real estate	Billion dollars	—	⁵ 193.7	—	—	—	⁶ 202.6
Gross National Product: ³							
Consumption ³	Billion dollars	457.3	865.7	—	—	942.8	—
Investment ³	Billion dollars	294.2	536.6	—	—	579.8	—
Government expenditures ³	Billion dollars	68.0	126.3	—	—	143.3	—
Net exports ³	Billion dollars	92.4	200.3	—	—	217.0	—
	Billion dollars	2.7	2.5	—	—	2.7	—
Income and Spending: ⁴							
Personal income, annual rate	Billion dollars	365.3	687.9	706.2	757.5	760.7	763.1
Total retail sales, monthly rate	Million dollars	17,098	28,309	28,697	29,346	29,249	29,371
Retail sales of food group, monthly rate	Million dollars	4,160	6,106	6,149	6,429	6,298	—
Employment and Wages: ⁴							
Total civilian employment	Millions	63.9	75.9	76.0	78.2	78.1	78.3
Agricultural	Millions	5.7	3.8	3.5	3.6	3.5	3.3
Rate of unemployment	Percent	5.8	3.6	3.6	3.5	4.0	3.9
Workweek in manufacturing	Hours	39.8	40.7	41.1	40.6	40.8	40.5
Hourly earnings in manufacturing, unadjusted	Dollars	2.12	3.01	3.06	3.19	3.24	3.24
Industrial Production: ⁴							
	1957-59=100	—	165	166	174	174	173
Manufacturers' Shipments and Inventories: ⁴							
Total shipments, monthly rate	Million dollars	28,745	50,310	52,560	55,239	56,406	—
Total inventories, book value end of month	Million dollars	51,549	88,579	87,566	93,728	94,209	—
Total new orders, monthly rate	Million dollars	28,365	50,597	53,931	54,799	56,887	—

¹ Average annual quantities of farm food products purchased by urban wage-earner and clerical-worker households (including those of single workers living alone) in 1959-61—estimated monthly. ² Annual and quarterly data are on 50-State basis. ³ Annual rates seasonally adjusted second quarter. ⁴ Seasonally adjusted. ⁵ As of November 1, 1968. ⁶ As of March 1, 1969.

Sources: U.S. Dept. of Agriculture (Farm Income Situation, Marketing and Transportation Situation, Agricultural Prices, Foreign Agricultural Trade and Farm Real Estate Market Developments); U.S. Dept. of Commerce (Current Industrial Reports, Business News Reports, Advance Retail Sales Report and Survey of Current Business); and U.S. Dept. of Labor (The Labor Force and Wholesale Price Index).



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Camille Takes Tung Toll

Most of our Nation's tung nut orchards are within 100 miles of the Gulf of Mexico—or at least they were before hurricane Camille struck the U.S. mainland in late August.

Now, a great many of these orchards have vanished in the wake of Camille.

The storm destroyed or damaged about one-half of the country's tung nut orchards on its rampage through towns, cities, and farms all up and down the Gulf Coast.

Mississippi's tung nut producers say their 1969 crop is gone—and two-thirds of the State's trees have been killed or critically damaged.

Alabama and Louisiana also suffered from the swathe cut by Camille. Only Florida's trees escaped unscathed.

The aftermath of the storm will undoubtedly be felt for years. At best, tung nut oil production in the next half decade will be extremely small.

It takes 5 years for new trees to start bearing fruit in commercial volume.

Output of the 1969 crop was estimated before the storm. It is now placed at approximately 5 million pounds.

At worst, Hurricane Camille may well have precipitated the beginning of the end of tung nut production in the United States.

Many growers may not feel that it is worthwhile for them to return to the crop, since it has been suffering setbacks in the fats and oils market during recent years. (23)

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